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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,769	04/04/2001	Atsushi Itoh	205553US3	1441

22850 7590 08/05/2003

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EXAMINER

KRISHNAN, SUMATI

ART UNIT PAPER NUMBER

2875

DATE MAILED: 08/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/824,769

Applicant(s)

ITOH, ATSUSHI

Examiner

Sumati Krishnan

Art Unit

2875

Ak

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/11/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,9-21 and 25 is/are rejected.
- 7) ☒ Claim(s) 2,5,7-8,22-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments, filed 6/6/03, with respect to the rejection(s) of claim(s) 1-25 under 35 U.S.C. 102(b), 35 U.S.C. 102(e) and 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the finality of the rejection and the rejection, have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Yano (US 6594143).

Claim Objections

Claim 14 is objected to because of the following informalities: Claim 14 recites the limitation "the rear surface" There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1,3,4,6, 13-19,20,21 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yano et al (US 6594143).

In regard to claim 1, Yano discloses a display device comprising a display portion (see figure 6), the display portion including electronic parts (see for example, panels 6 and 9) for driving the display portion through external signals, which are located inside of the display portion, mechanical parts (see for example back frame 8) for fixing the electronic parts to specified positions within the display portion, see column 8 lines 22-40, wherein the mechanical parts comprise at least a frame, (element 8) and nuts (threaded hole, elements 1b, and claim 1) mounted through the thin metallic frame (threaded holes extend through the frame, see fig. 6), by being caulked or by being directly threaded (Yano's nuts are directly threaded).

Yano does not disclose the back frame 8 being a thin metallic frame. However, it is well known in the art to use a thin metallic frame as the frame for the LCD display module. Also, since weight of the display device is increasingly becoming an issue in the art, thinner metals are increasingly being used in order to provide lighter display devices. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a thin metal as the material for the back frame 8 of Yano.

Regarding claim 3, Yano discloses the display device of claim 1, wherein the nuts are designed to mount the display device (figure 6) to an external device (see bottom frame, element 2, as shown in figure 5).

Regarding claims 4 and 6, Yano's nuts are designed to mount a predetermined accessory part (bottom frame 2) to a rear surface of the display device, see figure 5.

Regarding claims 13-14, Yano's display portion performs display of images by utilizing birefringence of liquid crystal. Additionally, Yano's display portion includes an irradiating portion (see figure 6, element 7, a backlight) disposed to irradiate light from a rear surface, with the thin metallic member (frame 8) supporting the irradiating portion 7 and the planar type display portion.

Regarding claims 15-18, Yano does not explicitly disclose displaying of images by any other method other than birefringence of liquid crystal. However, it is well known in the art to employ an electron-emitting device, a display device utilizing plasma discharge, a device using electro-luminescence, and a display device using a fluorescent display tube as thin planar image display devices. Applicant has not disclosed how the invention depends on utilizing specifically one of the above devices. Other alternatives include minute optical reflectors known as digital micro-mirror devices. The result of each of these methods are the same, to enable an image to display on the screen. Therefore, it would have been obvious to one skilled in the art to use any one of these methods as the method of display.

Regarding claim 19, Yano discloses a display device (see now figure 5) comprising a display portion of planar type (see now figure 5) including electronic parts and mechanical parts as described in the above rejection to claim 1. The mechanical parts of the display device in figure 5 include a frame (see bottom frame 2) for supporting the electronic parts. Yano does not explicitly disclose what material the bottom frame is made out of. However, it is old and well known in the art to provide the outer frame of a display module made out of a resin. In Yano's admission of prior art, particularly in figure 4, Yano calls attention to the outer frame 303b being made out of resin. Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have used resin for the bottom frame 2 of Yano, which is the corresponding frame in Yano's invention to the prior art frame 303b, due to its commonplace in the art.

Regarding claim 20, Yano's electronic parts include a liquid crystal panel (element 6) supported on optical sheets 7f supported on a light-conducting plate 7e supported on a reflecting sheet 7d, see column 10 lines 25-30.

Regarding claims 21 and 25, Yano's nut 1b has a smooth outer peripheral surface and a threaded inner peripheral surface for screwing a screw.

2. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yano (US 6594143) in view of Uchiyama (US 6128183). Yano does not disclose an end portion of the nut being reduced in size on the inner side of the display device. However, Uchiyama discloses a tapered pin which is used as a connector for a display device to enable easy engagement and a rigid attachment, to enable appropriate fitting, make more space or produce less interference. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have tapered the nut of Yano in any way, either to produce a chamfered, reduced in size, two-leveled, or a rounded end surface, because, as disclosed by the applicant, each produces the same result – oscillation resistance and impact resistance, due to the advantages listed above.

Allowable Subject Matter

Claims 2,5,7,8, and 22-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record neither shows nor suggests a screw inserting portion of the nuts exposed to outer surface of the display portion of the display device, the accessory part of claim 4 mounted to a lateral surface of the display device, the nuts mounted to a lateral surface of the display device, or the accessory part being an electrical circuit part.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sumati Krishnan whose telephone number is 703-305-7906. The examiner can normally be reached on 8:00 am - 4:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 703-305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

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July 24, 2003



Sandra O'Shea
Supervisory Patent Examiner
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